## **ABSTRACT**

The invention concerns a system for electrically regulating a power transmission device between the heat engine and a pair of electrical machines and the drive wheels of a motor vehicle, the heat engine being connected to the two electrical machines via a mechanical assembly, while an electrical connection device located between the two electrical machines provides a direct passage for power from one machine to the other, the connection transferring electric power between the two electrical machines being carried out via two static converters connected to a bus whereof the two lines are connected to a bus whereof the two lines are connected by a capacitor. The invention is characterized in that the voltage at the capacitor terminals is permanently maintained at a specific setpoint value, the system acting on the torque of the two electrical machines, in response to an error signal resulting from the comparison of the effective value with said voltage to said setpoint value. The invention is applicable to motor vehicle transmission.